WHAT IS CLAIMED IS:

1. An optical recording material which allows recording of information by irradiation of light, comprising at least

chalcogenide glass, and

metal particles dispersed in said chalcogenide glass and made of a metal which is diffusible in said chalcogenide glass by irradiation of said light.

2. An optical recording material according to claim 1,

wherein said metal is at least one metal selected from the group consisting of Ag, Au and Cu.

3. An optical recording material according to claim 1,

wherein the particle size of said metal is no greater than 1/20 of the wavelength of said light.

4. An optical recording material according to claim 1,

wherein the content of said metal particles is at least 0.1 vol% and less than 2 vol% based on the total volume of said optical recording material.

5. An optical recording material according to claim 1,

wherein said chalcogenide glass contains Ge and S.

6. An optical recording medium comprising at least

a substrate material, and

a recording layer comprising an optical recording material according to claim 1 formed on said substrate material.

7. A method for manufacturing an optical recording medium which allows recording of information by irradiation of light comprising a step of simultaneously or alternately forming, on a substrate material, films of chalcogenide glass and of a metal which is diffusible in said chalcogenide glass by irradiation of said light, to form on said substrate material a recording layer having metal particles made of said metal dispersed in said chalcogenide glass.

8. An optical recording medium fabricated by a method for manufacturing according to claim 7.

9. An optical recording method comprising a recording step wherein said metal is diffused in said chalcogenide glass by irradiating light on the recording layer of an optical recording medium according to claim 6.

10. An optical recording method comprising a recording step wherein said metal is diffused in said chalcogenide glass by irradiating light on the recording layer of an optical recording medium according to claim 8.

11. An optical recording method according to claim 9,

wherein said light is light with a wavelength of at least 0.7X and less than 1.0X, where X is the wavelength of the short wavelength end of the transmitting region of said chalcogenide glass.

12. An optical recording method according to claim 10,

wherein said light is light with a wavelength of at least 0.7X and less than 1.0X, where X is the wavelength of the short wavelength end of the transmitting region of said chalcogenide glass.

13. An optical recording method comprising a hologram recording step wherein said metal is diffused in said chalcogenide glass by irradiating recording light composed of a signal beam and a reference beam on the recording layer of an optical recording medium according to claim 6.

14. An optical recording method comprising a hologram recording step wherein said metal is diffused in said chalcogenide glass by irradiating recording light composed of a signal beam and a reference beam on the recording layer of an optical recording medium according to claim 8.

15. An optical recording method according to claim 13,

wherein said signal beam and reference beam are both light with a wavelength of at least 0.7X and less

than 1.0X, where X is the wavelength of the short wavelength end of the transmitting region of said chalcogenide glass.

16. An optical recording method according to claim 14,

wherein said signal beam and reference beam are both light with a wavelength of at least 0.7X and less than 1.0X, where X is the wavelength of the short wavelength end of the transmitting region of said chalcogenide glass.

17. A reproduction method comprising a step of irradiating reproduction light with a wavelength above the short wavelength end of the transmitting region of said chalcogenide glass onto the recording layer of an optical recording medium which is obtainable by an optical recording method according to claim 9.

18. A reproduction method comprising a step of irradiating reproduction light with a wavelength above the short wavelength end of the transmitting region of said chalcogenide glass onto the recording layer of an optical recording medium which is obtainable by an optical recording method according to claim 10.

19. A reproduction method comprising a step of irradiating reproduction light with a wavelength above the short wavelength end of the transmitting region of said chalcogenide glass onto the recording layer of an

optical recording medium which is obtainable by an optical recording method according to claim 13.

20. A reproduction method comprising a step of irradiating reproduction light with a wavelength above the short wavelength end of the transmitting region of said chalcogenide glass onto the recording layer of an optical recording medium which is obtainable by an optical recording method according to claim 14.